

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of  
HUBERT CECILE FRANCOIS MARTENS

Atty. Docket  
NL 030748

Confirmation No. 3436

Serial No. 10/563,935

Group Art Unit: 2627

Filed: JANUARY 9, 2006

Examiner: KLIMOWICZ, W.J.

Title: RECORDABLE OPTICAL RECORD CARRIER

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Board of Patent Appeals and Interferences  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

APPELLANTS' REPLY BRIEF

Sir:

In response to the Examiner's Answers mailed on June 18, 2009,  
please consider the following remarks:

REMARKS

Appellant maintains the arguments submitted in the Appeal Brief filed on April 13, 2009 which is incorporated herein by reference. Further, Appellant refutes the allegations made in the Examiner's Answer of June 18, 2009.

For example, pages 14 and 16 of the Examiner's Answer of June 18, 2009, alleges that the given the wavelength  $\lambda$  is not limited in value, and thus the claims recite an open ended range, unlimited in scope. Appellant respectfully submits that it is believed that there is no need to further limit the claims by reciting a particular wavelength, since independent claim 1 specifically recites a particular relationship among wavelength, refractive index and groove depth.

While a numerical value or range for the wavelength  $\lambda$  is not recited in the claims, nevertheless, independent claim 1 specifically recites an "optical record carrier for recording information using a radiation beam having wavelength  $\lambda$ ." That is,  $\lambda$  is specifically defined in claim 1 to be the wavelength for the radiation used to record information on the optical record

carrier.

Thus, whatever numerical value for the wavelength  $\lambda$  that is used for the radiation to record information on the optical record carrier, then independent claim 1 requires that the groove depth of the recording layer of the first recording stack (LO) be in the range from  $0.241 * \lambda / n_s$  to  $0.362 * \lambda / n_s$ . Accordingly, independent claim 1 is not open ended as it recites that the radiation wavelength  $\lambda$  used for recording, and the groove depth of the recording layer of the first recording stack (LO) must be in the range from  $0.241 * \lambda / n_s$  to  $0.362 * \lambda / n_s$ .

In addition, page 15 of the Examiner's Answer notes that the claims are drawn to a record carrier and not a system. It is respectfully submitted that it is believed that there is no need to recite a system since independent claim 1 clearly defines that the wavelength  $\lambda$  is for a radiation capable of recording information on the optical record carrier.

Further assuming, arguendo, that the groove depth of 140nm, as disclosed in paragraphs [0041] and [0050] of EP 1,067,535 (Muramatsu), falls within the range of  $0.241 * \lambda / n_s$  to  $0.362 * \lambda / n_s$ ,

as alleged on page 15 of the Examiner's Answer, it is respectfully submitted that mere disclosure of such a 140nm groove depth has nothing to do with any ratio of  $\lambda/n_s$ , where claim 1 clearly recites that the wavelength  $\lambda$  is for the radiation beam used for recording information, and  $n_s$  is the refractive index of the material in a land between grooves on the groove structure.

Muramatsu is completely silent about any relationship between the groove depth, and the wavelength  $\lambda$  and the refractive index  $n_s$  of the material in a land between grooves on the groove structure. Muramatsu does not even disclose or suggest any relationship or dependence of the groove depth on  $\lambda$  and  $n_s$ , let alone disclosing or suggesting that the groove depth is related to particular ratios of  $\lambda/n_s$ . Muramatsu simply does not disclose or suggest any groove depth in terms of the ratio of  $\lambda/n_s$ . There is simply no disclosure or suggestion in Muramatsu that "the groove depth of the recording layer of the first recording stack (LO) is in a range from  $0.241*\lambda/n_s$  to  $0.362*\lambda/n_s$ , where  $n_s$  is a refractive index of a material in a land between grooves on the groove structure," as recited in independent claim 1.

A recording layer groove depth of 140nm may be one embodiment of the present application, but so long as such a 140nm groove depth meets the requirement of independent claim 1 related to the ratio of  $\lambda/n_s$ , namely, being from  $0.241*\lambda/n_s$  to  $0.362*\lambda/n_s$ . Stated differently, an optical record carrier having a groove depth of 140nm would not infringe claim 1, unless the requirement of independent claims 1 of the groove depth being from  $0.241*\lambda/n_s$  to  $0.362*\lambda/n_s$  is met.

Accordingly, it is respectfully requested that independent claim 1 be allowed. In addition, it is respectfully submitted that claims 2-16 should also be allowed at least based on their dependence from independent claim 1 as well as their individually patentable elements.

In addition, Appellant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Appellant reserves the right to submit further arguments in support of the above stated position,

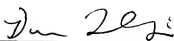
should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

CONCLUSION

Claims 1-16 are patentable over Muramatsu.

Thus, the Examiner's rejections of claims 1-16 should be reversed.

Respectfully submitted,

By   
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